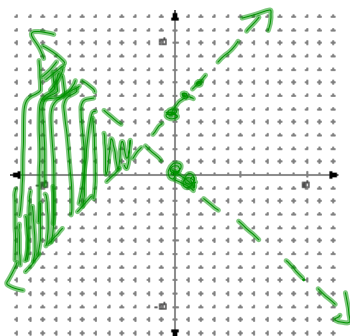


3-3 Graphing a System of Linear Inequalities

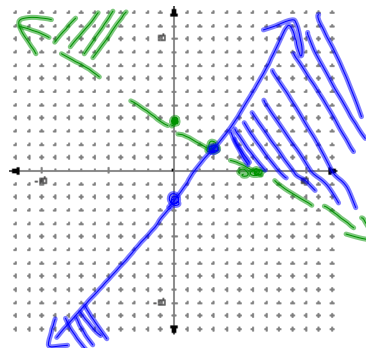
ex 1:
 $y > x + 5$
 $y < -x + 1$



ex 2:
 $2x + 3y > 12$
 $-3y \geq 6 - 4x$

$$y > 4 - \frac{2}{3}x$$

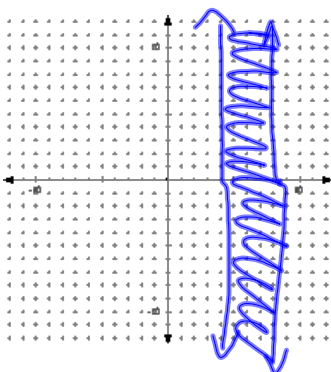
$$y \leq \frac{4}{3}x - 2$$



ex 3:
 $4 \leq x \leq 8$

$$x \geq 4$$

$$x \leq 8$$



Do:
 $y \leq 3x - 4$
 $y \geq 6 - x$
 $x \leq 5$

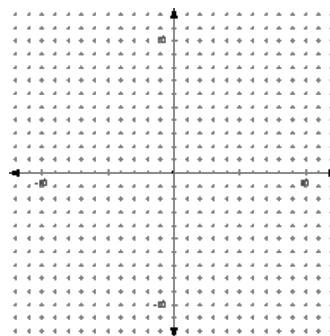
$$y = 3x - 4$$

$$y = 6 - x$$

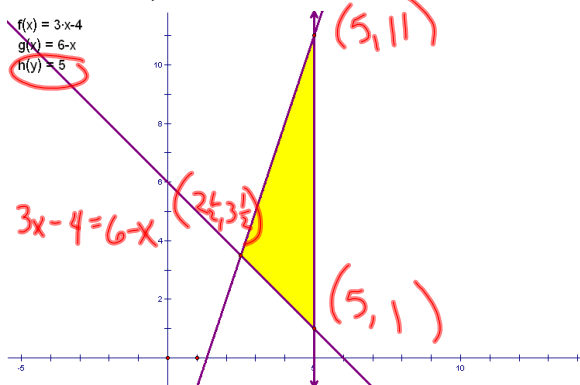
$$3x - 4 = 6 - x$$

$$4x = 10$$

$$x = 2.5$$



Find the corner points.



ex:

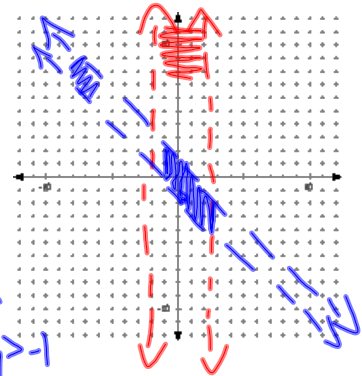
$$|x| < 2$$

$$|x + y| < 1$$

$$x < 2 \text{ AND } x > -2$$

$$x + y < 1 \text{ AND } x + y > -1$$

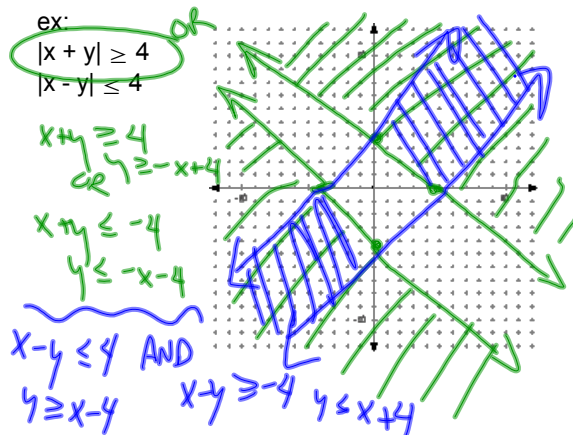
$$y < -x + 1 \text{ AND } y > -x - 1$$



ex:

$$|x + y| \geq 4$$

$$|x - y| \leq 4$$



HW

p126 12, 15, 17, 20, 21, 24, 28